CLAIMS

What is claimed is:

1. A rotary cutting tool comprising, in combination:

a rotary die cylinder;

a die plate fixedly mounted to the rotary die cylinder at a first position and adjustably mounted to the rotary die cylinder at a second position; and

an external eccentric mounted on the rotary die cylinder and adapted to fit into an opening in the cylinder at the second position, the external eccentric having a first axis of rotation with respect to the cylinder;

wherein rotation of the external eccentric about the first axis adjusts the position of the die plate with respect to the cylinder.

2. The rotary cutting tool of claim 1 wherein the external eccentric has a central opening offset from the first axis.

3. The rotary cutting tool of claim 1 further comprising an internal eccentric mounted in the central opening and operatively connected to the die plate.

4. The rotary cutting tool of claim 3 further comprising a top fastener which operatively connects the die plate to the internal eccentric.

5. The rotary cutting tool of claim 1 further comprising a mounting pin extending radially outward from the cylinder at the first position, wherein the die plate forms an opening sized to snugly receive the mounting pin.

6. The rotary cutting tool of claim 2 further comprising a set screw which engages an external surface on the external eccentric, wherein rotation of the set screw rotates the external eccentric around the first axis.

7. The rotary cutting tool of claim 3 wherein rotation of the external eccentric urges the internal eccentric to rotate about a second axis offset from the first axis so that the internal eccentric moves with respect to the cylinder.

8. The rotary cutting tool of claim 1 wherein the first axis of rotation extends generally radially away from the die cylinder.

9. A rotary cutting tool comprising, in combination:

a rotary die cylinder;

a die plate adjustably mounted to the rotary die cylinder;

an external eccentric mounted on the rotary die cylinder having a first axis of rotation with respect to the cylinder and having a central opening offset from the first axis; and

an internal eccentric mounted in the central opening;

wherein rotation of the external eccentric urges the internal eccentric and the die plate to move with respect to the cylinder.

10. The rotary cutting tool of claim 9 wherein the die plate forms four openings and a corresponding top fastener extends though at least three of the openings, and the top fasteners are fastened to corresponding internal eccentrics so that the die plate moves in response to motion of the corresponding internal eccentric.

11. The rotary cutting tool of claim 10 further comprising external eccentrics corresponding to each of the internal eccentrics, wherein each external eccentric and its corresponding internal eccentric cooperate with the die cylinder to maintain tension on the die plate.

12. The rotary cutting tool of claim 9 wherein the external eccentric is rotatable about a first axis in an opening formed in the cylinder, and the internal eccentric is rotatable in a central opening in the external eccentric about a second axis offset from the first axis.

13. The rotary cutting tool of claim 9 further comprising a second die cylinder and second die plate adapted to cooperate with the first die cylinder and first die plate to cut a thin material between the die plates.

14. The rotary cutting tool of claim 9 wherein the internal eccentric is rotatable about a second axis offset from the first axis;

a top fastener is fastened to the internal eccentric offset from both the first axis and the second axis; and

the top fastener engages the die plate.